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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,607	09/05/2003	Jill P. Card	IBX-008	8004

51414 7590 04/29/2005

GOODWIN PROCTER LLP  
PATENT ADMINISTRATOR  
53 STATE PLACE  
BOSTON, MA 02109-2881

EXAMINER
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BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/656,607

**Applicant(s)**

CARD ET AL.

**Examiner**

Crystal J. Barnes

**Art Unit**

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3 October 2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is an Ex Parte Quayle upon examination of the above-identified application on the merits. Claims 1-18 are pending in this application.

#### *Priority*

2. Applicant has complied with the conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e).

#### *Information Disclosure Statement*

3. The examiner has considered the information disclosure statement (IDS) submitted on 3 October 2003.

4. The information disclosure statement filed 3 October 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the cited foreign patent document (B1) referred to therein has not been considered.

*Drawings*

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference numbers 125 in figure 1; 235, 245, 250, 255 in figure 2; and 362, 364, 366, 368, 370, 372, 382, 384, 386, 388, 390, 392 in figure 3.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Allowable Subject Matter*

6. Claims 1-18 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

As per claim 1, the prior art of record taken alone or in combination fails to teach for each corrective action, computing a risk reduction associated with the process outputs; and determining an urgency metric, based at least in part on the risk reductions, for each of the corrective actions.

As per claim 11, the prior art of record taken alone or in combination fails to teach a data processing device for receiving, from the process monitor, data indicative of values of the process outputs, and determining the urgency levels for one or more corrective actions based on (i) a risk reduction associated with the process outputs, and (ii) a relationship between the operational variables and the process outputs.

8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to optimization or adaptive process control in general:

USPN 6,839,599 B2 to Martin et al.

USPN 6,775,647 B1 to Evans et al.

USPN 6,721,609 B1 to Wojsznis et al.

USPN 6,594,575 B2 to Pflugl et al.

USPN 6,246,972 B1 to Klimasauskas

USPN 5,617,342 to Elazouni

USPN 5,347,446 to Iino et al.

USPN 5,195,041 to George et al.

USPN 4,628,462 to Putman

US Pub. No. 2005/0007249 A1 to Eryurek et al.

US Pub. No. 2004/0017575 A1 to Balasubramanian et al.

US Pub. No. 2004/0015461 A1 to Lo

US Pub. No. 2003/0191728 A1 to Kulkarni et al.

US Pub. No. 2003/0145836 A1 to Linna et al.

US Pub. No. 2002/0077711 A1 to Nixon et al.

D. Senthil Kumaran et al., "Environmental life cycle cost analysis of products", Environmental Management and Health, 2001, Vol. 12 No. 3, ABI/INFORM Global pp. 260-276.

10. This application is in condition for allowance except for the above formal matters: objections to the drawings.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJB  
26 April 2005



**Anthony Knight**  
Supervisory Patent Examiner  
Group 3600